


## PATENT COOPERATION TREATY

PCT

REC'D 28 SEP 2004

INTERNATIONAL PRELIMINARY EXAMINATION REPORT PCT  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 96 761 a/ubr		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/01091	International filing date (day/month/year) 04.02.2003	Priority date (day/month/year) 09.04.2002	
International Patent Classification (IPC) or both national classification and IPC C13K1/00			
Applicant DANISCO SWEETENERS OY			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand  28.08.2003		Date of completion of this report  24.09.2004	
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  Georgopoulos, N  Telephone No. +49 89 2399-2634	



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP 03/01091

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-31 as originally filed

**Claims, Numbers**

1-16 as originally filed

**Drawings, Sheets**

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	3, 4, 10-12, 15, 16
	No: Claims	1, 2, 5-9, 13, 14
Inventive step (IS)	Yes: Claims	
	No: Claims	1-16
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Item V**

- 1 Reference is made to the following documents:  
  
D1: US-A-3 817 787  
D2: US-A-3 864 406  
D3: US-A-5 462 864
- 2 The subject-matter of present independent claim 1 as well as that of present dependent claims 2, 5-9, 13 and 14, is not novel (Art.33 (2) PCT).
- 2.2 D1 discloses a process for separating monosaccharides from mixtures comprising mono-, di-, tri- and oligosaccharides, said process falling within the scope of present claims 1, 2, 5-9, 13 and 14 (see column 1, lines 22-27; column 1, line 53 - column 2, line 19; example I; and claims 1 and 7-9 of D1).  
Moreover, D2 anticipates the subject-matter of present claims 1, 2 and 7-9 (see column 1, line 61 - column 2, line 2; example; and claims 1-7 of D2).
- 3 The subject-matter of present dependent claims 3, 4, 10-12, 15 and 16 does not confer any inventiveness (Art.33 (3) PCT) to the subject-matter of present claim 1, for the following reasons:  
a/ the subject-matter of present claims 3, 4 and 10-12 would be obvious to the person skilled in the art in regard of the combination [D1+D2+D3] (see the aforementioned passages of D1 and D2 as well as column 3, lines 17-27, column 9, line 31 - column 13, line 21, examples 1, 3 and 4; and claims 1, 2, 4, 5, 11 and 12 of D3); and  
b/ the subject-matter of present claims 15 and 16 (i.e. crystallisation of a sugar alcohol, and more specifically, maltitol) represents merely trivial design possibilities not connected to any unexpected technical effects or advantages.
- 4 The subject-matter of present claims 1-16 is susceptible of industrial application in the field of the saccharide separation industry (Art.33 (4) PCT).
- 5 The vague and imprecise formulation in the description on page 13, last three lines of the last paragraph ("and should not be construed ... example only") implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity (Article 6 PCT) when used to interpret them. Said formulation has not been deleted.

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- 6 The word "dimmer" (see page 4, line 8 of the present description) has not been replaced by "dimer" (clerical error).